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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,216	12/08/2003	Wolfgang Sommer	051812-1240	2074
24504	7590	03/02/2006	EXAMINER	
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			SHARP, JEFFREY ANDREW	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/730,216	<b>Applicant(s)</b> SOMMER ET AL.	
	<b>Examiner</b> Jeffrey Sharp	<b>Art Unit</b> 3677	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/09/2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

[1] This action is responsive to Applicant's remarks/amendment filed on 09 December 2005 with regard to the Official Office action mailed on 19 September 2005.

#### ***Status of Claims***

[2] Claims 1-15 are pending.

#### ***Claim Objections***

[3] Claim 3 was previously objected to because of informalities. Applicant has successfully addressed these issues in the amendment filed on 09 December 2005. Accordingly, the objection to claim 3 has been withdrawn.

#### ***Claim Rejections - 35 USC § 112***

[4] The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[5] Claims 8, 10, and 11 were previously rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has successfully addressed the issue(s) of indefiniteness in the amendment filed on 09 December 2005. Accordingly, the rejection of claims 8, 10, and 11 under 35 U.S.C. 112, second paragraph have been withdrawn.

*Claim Rejections - 35 USC § 102*

[6] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

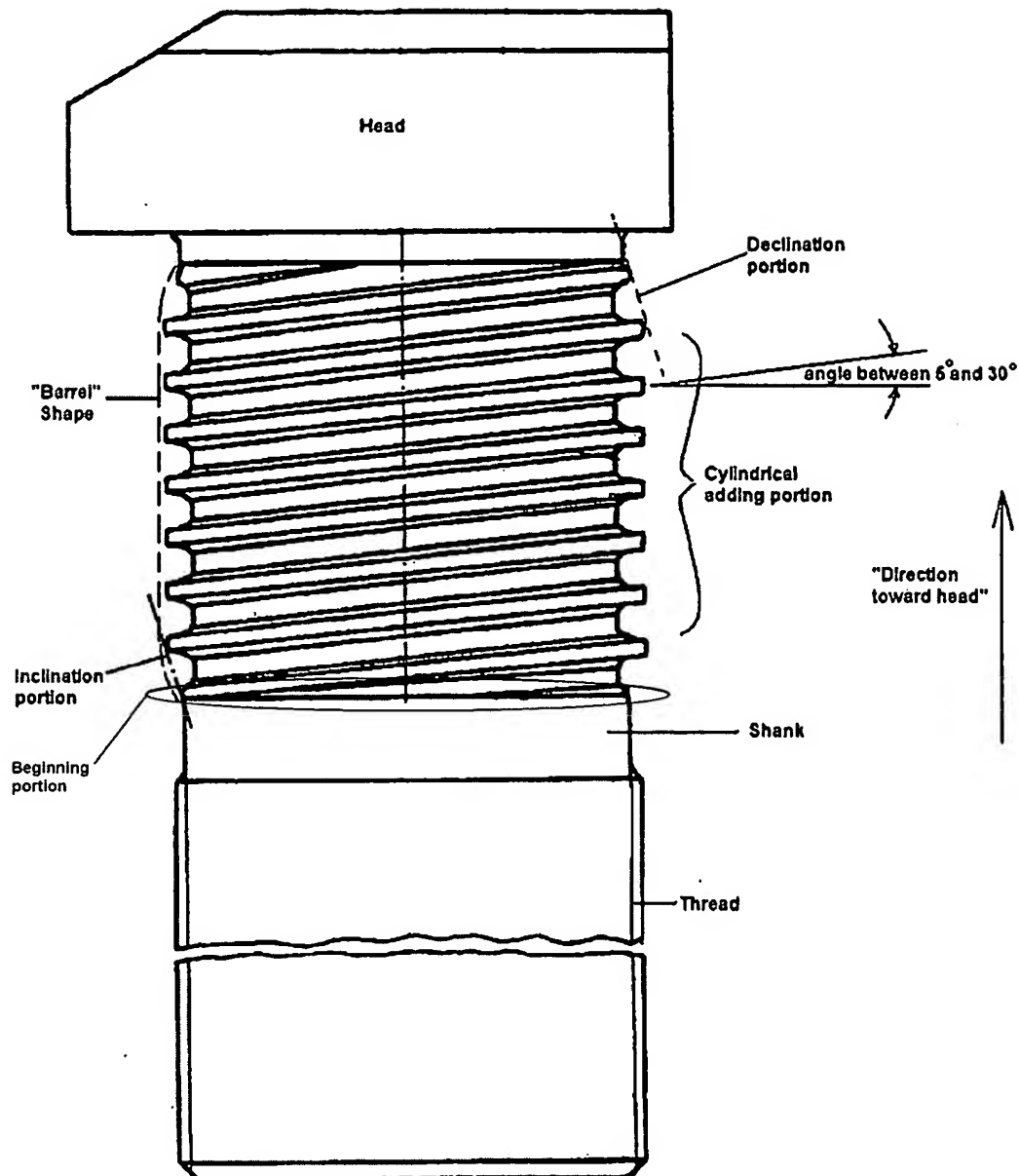
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[7] Claims 1-7, 9, 10, and 15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Damm et al. US-5,645,386.

In short, Damm et al. teaches a "wheel stud" press-fit fastener (1) having a shank (5) head (4), press-fit portion (10) having a multiple helical profile (Abstract lines 9-11), inclination portion (17), declination portion (Figure 2), "barrel-shape", cylindrical adding portion having the same outer diameter as the multiple helical profile and being next to the inclination portion toward the head, and between the inclination and declination portions.



Damm et al. US-5,645,386 Figure 2 (annotated). Things clearly shown in reference patent drawings qualify as prior art features, even though unexplained by the specification. In re Mraz, 173 USPQ 25 (CCPA 1972).

As for Claim 9, Damm et al. see col. 4 lines 38-39.

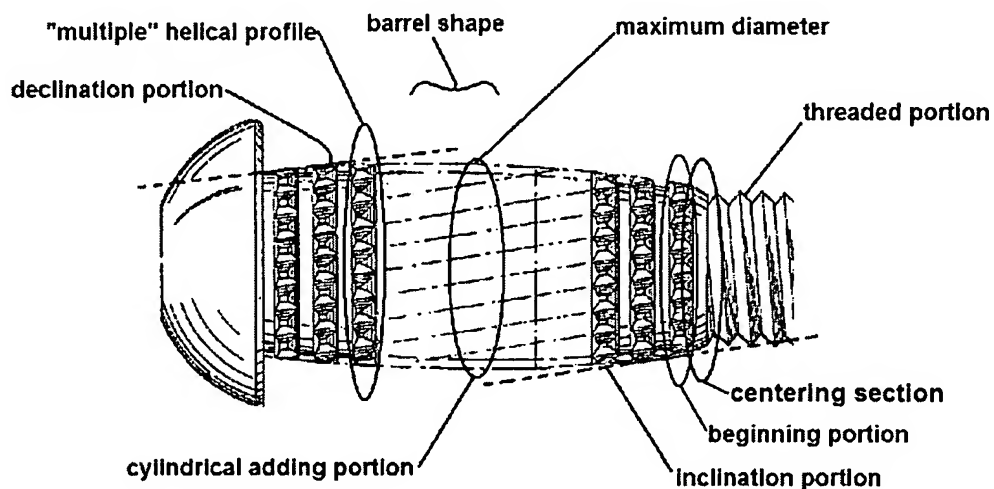
As for claim 10, see Damm et al. col. 5 lines 8-12.

As for claim 15, see Damm et al. abstract line 1.

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[8] Claims 1-8, and 10-13 are rejected under 35 U.S.C. 102(b) as anticipated by Waltermire US-3,252,495.

In short, Waltermire teaches a "wheel stud" press-fit fastener (10) having a shank (12) head (13), press-fit portion (11) having a "multiple helical profile" (broad interpretation), inclination portion (col. 4 lines 25-29, lines 57-65), declination portion (col. 4 lines 34-36, col. 5 lines 8-10), "barrel-shape" (col. 2 line 38), and cylindrical adding portion having the same outer diameter as the multiple helical profile and being next to the inclination portion toward the head and between the inclination and declination portions. The fastener (10) has a threaded portion (14) at a second end of the shank. The fastener (10) further comprises a "centering section" (@ numeral 12 in Figure 1) having a larger diameter than a thread of the threaded portion (14), and a smaller diameter than the minimum outer diameter of the helical profile (11). The axial length of the centering section (12) is "approximately" 10 percent that of the outer diameter of the helical profile press-fit portion (11). As for claim 8, Waltermire shows at least six threads for each (broad) "multiple helical profile".



Waltermire US-3,252,495

*Claim Rejections - 35 USC § 103*

[9] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[10] Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damm et al. US-5,645,386.

Damm et al. teaches those limitations found in the instant claim 1 as discussed above, including a helical profile having a core diameter which "approximately" equals the flank diameter of said thread; however, is silent about having exactly *six* threads in the multiple helical profile.

As for claim 8, Damm et al. suggests "multiple" threads (col. 3 lines 30-31), and expressly states in col. 3 lines 4-7 that it is preferable to have "at least a triple-threaded" press-fit portion. Damm et al. suggest triple (col. 3 line 17), double (col. 3 line 28), and quadruple (col. 7 line 63) threads. Therefore, it would have been obvious to one of ordinary skill in the art, from Damm et al.'s disclosure, to have six threads in a "*multiple* helical profile" of a "press-fit fastener", the number of which could be varied with expected results (greater/lesser insertion force, holding power, profile shear due to interference, rotation upon insertion, alignment, etc.). Further, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Moreover, the courts have held that mere duplication of parts has no patentable significance unless a new and

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unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). In the instant case, Applicant has not provided convincing reasoning as to why six threads is any better than two, three, or four. Additionally, Applicant has not demonstrated how "six" threads would be unobvious in view of prior art that suggests "multiple" threads, "preferably" greater than three.

As for claim 11, Damm et al. suggests variations in thread diameter and helical profile diameter, depending on its desired use. It is evident from col. 4 line 60-col. 5 line 7, that larger helical profile diameters would provide a diametrical clearance for the threaded portion, so as to reduce the risk of marring/shearing the threads of the threaded portion not designed for press-fit applications. An ordinarily skilled artisan would appreciate that the helical profile "press-fit portion" could be sized closely in diameter to the threaded portion to save material, weight, or to better suit the press fit portion of the fastener for apertures closely sized in diameter for slight clearance of the threaded portion. A modification such as a mere change in size of the press-fit portion would be obvious, because a change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. In its broadest sense, Damm et al. shows the helical profile having a core diameter "approximately" equal to the pitch



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diameter of the thread, even though it is not expressly disclosed in the specification. The word "approximately" expands the scope of this limitation.

[11] Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Waltermire US-3,252,495.

When interpreted broadly, Waltermire teaches or at least suggests the particulars of claims 12 and 13 as discussed above.

However, Waltermire is silent about the axial length of the centering section being "approximately 25%" of the maximum outer diameter of the press fit portion.

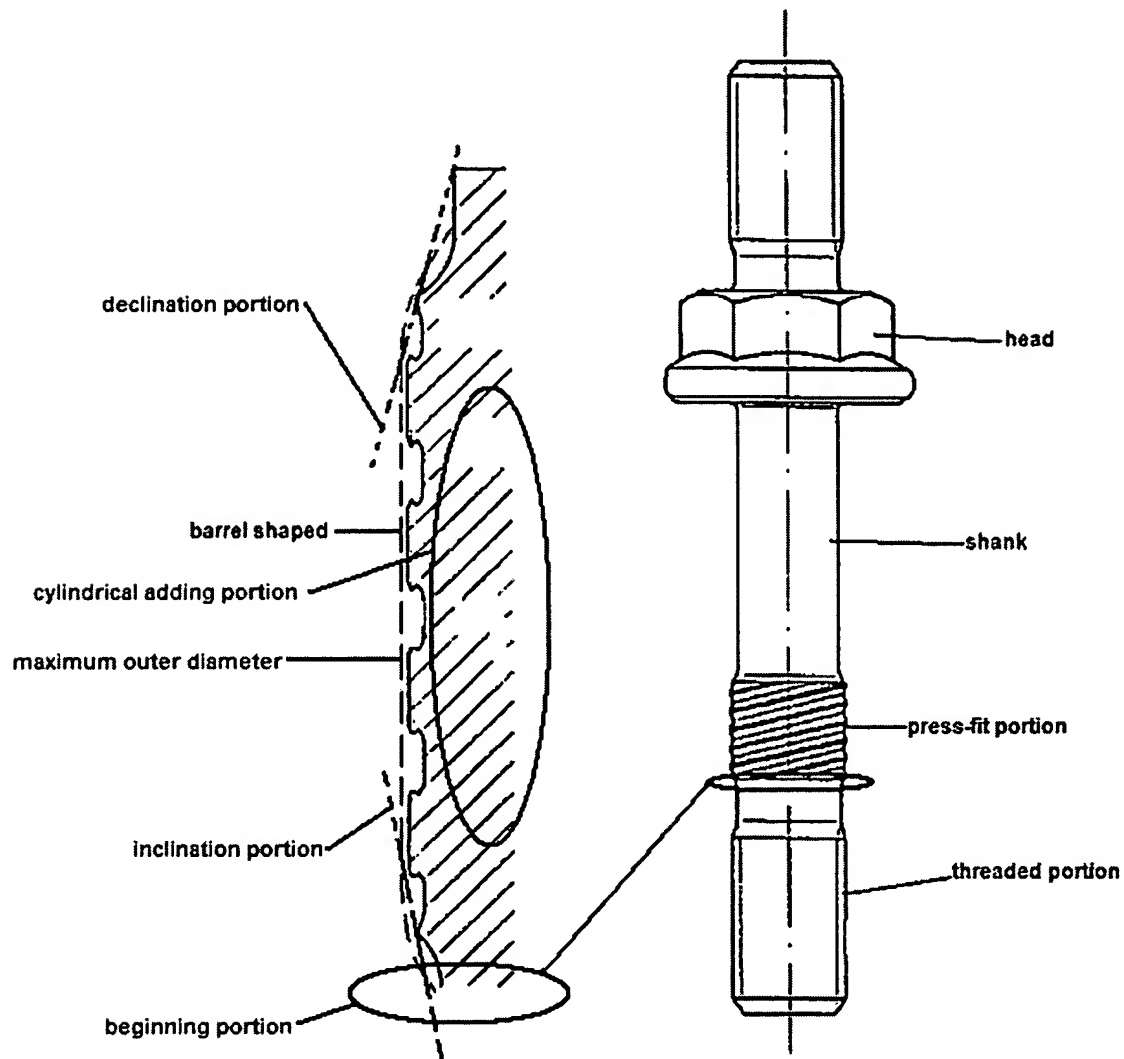
At the time of invention, it would have been obvious to one of ordinary skill in the art to experiment with the axial length of the "centering section" taught by Waltermire, in order to 1) accommodate and suit various panel thicknesses, and/or 2) provide sufficient lead-in and alignment of the press-fit fastener. It would have been further obvious to modify the length of the centering section taught by Waltermire, because a change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

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[12] Claims 1-7, and 9-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hartmann et al. US-6,264,414.

In short, Hartmann et al. substantially teach or at least suggest a fastener having a head, a shank, a press-fit portion, and a thread at an end of the shank opposite the head -- the maximum outer diameter of the press-fit portion being clearly spaced apart from said head, said press fit portion clearly having both an "inclination" and "declination" portion, said press fit portion further having a cylindrical adding portion being located between said inclination and declination portions, and said press-fit portion further having a (broad) "beginning portion" adjacent the inclination portion. The multiple helical profile of the press-fit portion has "approximately" the same pitch diameter of the thread. Refer to illustration below.

Inclination portion is "designed to increase in a direction towards said head to reach a maximum outer diameter"



Hartmann et al. US-6,264,414 (annotated). Things clearly shown in reference patent drawings qualify as prior art features, even though unexplained by the specification. In re Mraz, 173 USPQ 25 (CCPA 1972).

***Response to Arguments/Remarks***

[13] Claims 1-7, 9, 10, and 15 were previously rejected under 35 U.S.C. 102(b) as being clearly anticipated by Damm et al. US-5,645,386.

Applicant's arguments filed 09 December 2005 have been fully considered but they are not persuasive.

Examiner acknowledges Applicant's opinion that the Damm et al. reference *allegedly* fails to teach the limitations of claims 1-7, 9, 10, and 15; however, still takes the position that the limitations found in the abovementioned claims are clearly shown by Damm et al. Applicant is reminded that claims in a pending application should be given their broadest reasonable interpretation. *In re Pearson*, 181 USPQ 641 (CCPA 1974). In the instant case, the limitation "multiple helical profile" is so broad, it fails to clearly and uniquely depart from the scope of Damm et al.'s disclosure. Although it appears that Damm et al. do not prefer the *particular* language "beginning portion" and "inclination portion" as preferred by Applicant in the present invention, Damm et al. clearly illustrate such limitations, especially as they are interpreted broadly. Things clearly shown in reference patent drawings qualify as prior art features, even though unexplained by the specification. *In re Mraz*, 173 USPQ 25 (CCPA 1972).

It appears that Applicant submits "*that the bottom of the alleged 'inclination portion' referenced in the [Office Action] figure could be argued to be the claimed 'beginning portion'*" (top of page 10). Therefore, when given its broadest interpretation, a "beginning portion" is reasonably taught by Damm et al. Although Applicant states that if, *arguendo*, this is the case, "*no additional claimed 'inclination portion' is disclosed by Damm*", the examiner takes the

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position that *the rest of* the inclination portion (i.e., all parts of the inclination portion other than *the bottom*) could be construed as the "inclination portion".

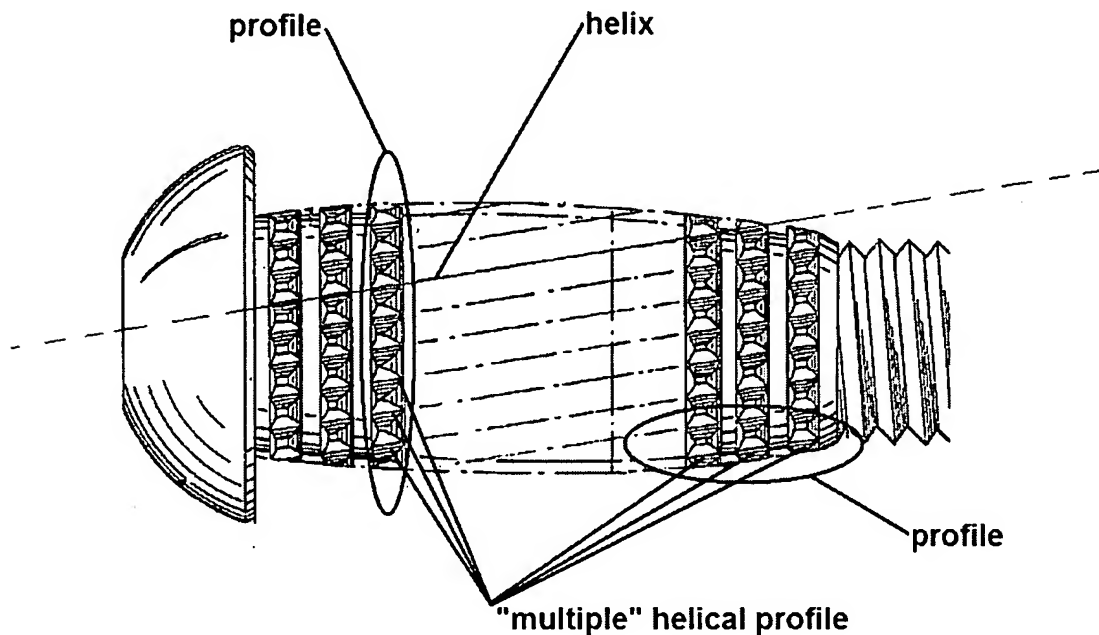
Applicant fails to make any *reasonable* distinction between the present invention's "beginning portion" and Damm's "beginning portion". Furthermore, Applicant fails to make any *reasonable* distinction between the present invention's "inclination portion" and Damm's "inclination portion". For instance, there is no mention or limitation to the number of thread revolutions necessary in each "portion". Furthermore, there is no mentioned relative axial size limitations for each "beginning portion" and/or "inclination portion" which would lead someone of ordinary skill in the art away from Damm et al.'s teachings. The limitations are rather broad, even in light of the present specification, and therefore, are still anticipated by the Damm et al. '386 reference.

[14] Claims 1-8, and 10-13 were previously rejected under 35 U.S.C. 102(b) as anticipated by Waltermire US-3,252,495.

Applicant's arguments filed 09 December 2005 have been fully considered but they are not persuasive.

It appears Applicant's main argument with respect to the Waltermire reference, is that Waltermire allegedly fails to teach "*a multiple helical profile*" (Emphasis was added), and that Waltermire, instead, allegedly teaches a plurality of "*individually spaced rings of knurls*". While one could argue this to be the case, the examiner continues to take the position that Waltermire teaches a "multiple helical profile". Applicant has not provided a convincing argument as to how a "multiple helical profile" differs from what is taught by Waltermire.

It is not necessary for the prior art to use the same terminology as Applicant. Applicant's attention should be drawn to the broadest reasonable interpretation of "multiple helical profile".



Waltermire US-3,252,495

A "profile" is broadly construed as any *topographical portion*, and "multiple" is broadly construed as *more than one*. "Helical", as acknowledged by Applicant, (middle of page 14) is known to confer a *spiral shape*. All of these are clearly shown by Waltermire. In no way does a "multiple helical profile" suggest or imply a profile having "fully formed multiple threads, each having at least one full thread revolution about an axis of said shank", which would be further limiting, and is in no way positively claimed. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Even if, *arguendo*, Waltermire does show a plurality of "*individually spaced rings of knurls*", as indicated by Applicant, it is apparent from the above drawing that each of these

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"knurls" inherently comprise a "multiple helical profile". One of ordinary skill in the art may also argue that Waltermire teaches a multiple thread profile that may be interrupted by axially displaced external annular grooves. Without further limitation, the examiner takes the position that Waltermire teaches each and every limitation in claims 1-8, and 10-13 when the claims are given their broadest reasonable interpretation.

[15] Claims 8 and 11 were previously rejected under 35 U.S.C. 103(a) as being unpatentable over Damm et al. US-5,645,386.

Applicant's arguments filed 09 December 2005 have been fully considered but they are not persuasive. Applicant addressed only admissions within the specification, and has not addressed or rebutted the prima facie case of obviousness made. Accordingly, Examiner strikes the previously made comment that *"Applicant admits this on page 1 lines 17-18 of the specification"*; however, the rejection as made stands.

As for claim 8, the Damm et al. reference clearly teaches or at least suggests a "multiple helical profile" having any number of "multiple" threads, especially numbers greater than 3 (col. 3 lines 4-7).

**According to the invention this is obtained with the force fit connecting element of the type described above in that the force fit section has a multiple-threaded, preferably at least triple-threaded, helical profile, that the helical profile, with respect to the cylindrical surface area of the drilled hole, has**

Therefore a multiple helical profile comprising six threads is obvious in light of Damm et al.'s disclosure.

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As for the size limitation found in claim 11, as stated in the previous Office Action, in *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. Furthermore, Damm et al. shows a helical profile to have a core diameter which "approximately" equals the thread pitch diameter. Note that "approximately" or "substantially" cannot be read out of a patent, but must be read together with more specific terms. --*Jack Winter, Inc. v. Koratron Co. Inc. (DC NCalif)* 181 USPQ 353.

[16] Claim 14 was previously rejected under 35 U.S.C. 103(a) as being unpatentable over Waltermire US-3,252,495.

Applicant's arguments filed 09 December 2005 have been fully considered but they are not persuasive. Accordingly, this rejection is maintained.

[17] Claims 1-7 and 9-11 were previously rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hartmann et al. US-6,264,414.

Applicant's arguments filed 09 December 2005 have been fully considered but they are not persuasive. Accordingly, this rejection is maintained.

Things clearly shown in reference patent drawings qualify as prior art features, even though unexplained by the specification. In re Mraz, 173 USPQ 25 (CCPA 1972). Examiner has



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further clarified how Hartmann et al. anticipates and/or at least suggests the limitations of claims 1-7 and 9-11 as discussed above. The maximum outer diameter of the press-fit portion is clearly spaced apart from the head, said press fit portion clearly has both inclination and declination "portions", a cylindrical adding portion is clearly located therebetween, as well as a (broad) "beginning portion" adjacent the inclination portion. The multiple helical profile of the press-fit portion has "approximately" the same pitch diameter of the thread.

### *Conclusion*

[18] Applicant is invited to contact the examiner at the telephone number listed below with any questions in order to expedite prosecution.

[19] **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

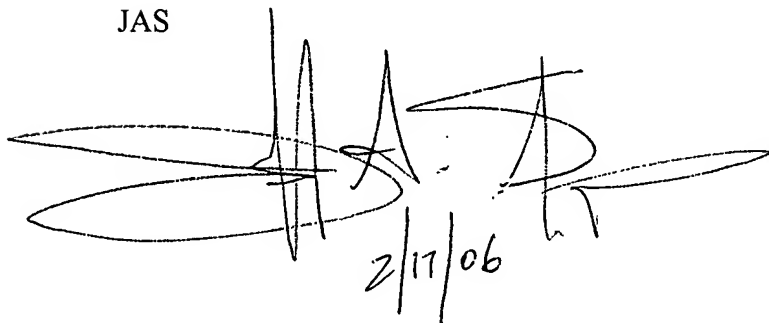
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[20] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (571) 272-7074. The examiner can normally be reached 7:00 am - 5:30 pm Mon-Thurs.

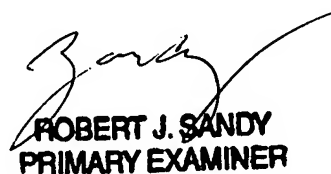
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS



2/17/06



ROBERT J. SANDY  
PRIMARY EXAMINER